PATENT CLAIMS

1. A double progressive spectacle lens, wherein at least one of the two progressive surfaces has at least one of the following properties:

principal line of sight

a) the profile of the surface power along the principal line of sight in the progression channel is not monotonic between y = -15 mm and y = +10 mm,

b) the profile of the surface astigmatism along the principal line of sight has at least two clearly expressed maxima that are at least 0.175 dpt above an adjacent minimum,

c) the surface astigmatism A deviates in absolute terms by more than dA upward or downward from the prescription value A_R of the cylinder at approximately all points along the principal line of sight,

d) the surface astigmatism has a global maximum on or in the vicinity of the principal line of sight between y = ±20 mm,

e) the surface astigmatism has a local maximum on or in the vicinity of the principal line of sight between y = ±20 mm,

f) 85% of the change in the surface power along the principal line of sight is reached on each of the surfaces on a path of less than 11 mm,

g) the channel width at 0.75 dpt has at least two minima in the progression channel between y = +10 mm and y = -18 mm,

distance zone

h) the surface astigmatism A deviates in the distance zone by more than dA upward or downward from the prescription value A_R of the cylinder at

approximately all points:
$|A-A_R| \geq dA$, with $dA \geq 0.18$ dpt

i) the surface astigmatism A deviates in the distance zone by more than dA upward or downward from the prescription value A_R of the cylinder at at least one point:
$|A-A_R| \geq dA$, with $dA \geq 0.5$ dpt

near zone

j) the surface astigmatism A deviates in the near zone by more than dA upward or downward from the prescription value A_R of the cylinder at approximately all points:
$|A-A_R| \geq dA$, with $dA \geq 0.22$ dpt

k) the surface astigmatism A deviates in the near zone by more than dA upward or downward from the prescription value A_R of the cylinder at at least one point:
$|A-A_R| \geq dA$, with $dA \geq 0.4$ dpt.

2. The double progressive spectacle lens as claimed in claim 1, wherein at least one of the two progressive surfaces has at least one of the following properties:

periphery

l) the surface astigmatism has at least three local maxima within a circle about the origin of radius 30 mm,

m) the maximum of the gradient of the surface power is greater than k*Add with k = 0.2 1/mm,

n) the maximum of the gradient of the surface astigmatism is greater than m*Add with m = 0.2 1/mm.

3. The double progressive spectacle lens as claimed in claims 1-2, wherein at least one of the two progressive surfaces has at least one of the following properties:

horizontal sections

o) the surface power in the horizontal section has a local maximum in the distance zone or in the vicinity of the principal line of sight,

p) the surface power in the horizontal section has a local minimum in the near zone or in the vicinity of the principal line of sight,

q) the surface astigmatism in the horizontal section has a maximum in the progression zone or in the vicinity of the principal line of sight.

4. The double progressive spectacle lens as claimed in claims 1-3, wherein in b) the maxima occur between y = -20 mm and y = +18 mm.

5. The double progressive spectacle lens as claimed in claims 1-4, wherein in c) $|A-A_R| \geq dA$, with $dA \geq 0.2$ dpt.

6. The double progressive spectacle lens as claimed in claims 1-5, wherein the maximum is between y = ± 10 in d).

7. The double progressive spectacle lens as claimed in claims 1-6, wherein in e) the maximum is between y = ±10 and no higher value of the surface astigmatism exists at a distance of 20 mm.

8. The double progressive spectacle lens as claimed in claims 1-7, wherein in f) the increase in the surface power on the front surface and rear surface runs offset vertically in such a way that an extended

progression length of more than 11 mm is produced in the position of use.

9. The double progressive spectacle lens as claimed in claims 1-8, wherein in g) the minimum channel width B at 0.75 is a function of the addition and smaller than B, with $B = b_0 + b_1 * Add$, b_0 and b_1 being capable of varying between the bounds b_0 = 8.5-9.5 mm and b_1 = -2.2 - -1.8 mm/dpt, and the value of the other minima in each case being at least 12% above the value of the smallest minimum, and the middle of the channel, the arithmetic mean of the horizontal coordinates of the right-hand and left-hand lines of equal surface astigmatism being in a range of 4 mm, preferably 2 mm to the right and left of the principal line of sight.

10. The double progressive spectacle lens as claimed in claims 2-9, wherein in l) the surface astigmatism has at least three local maxima within a circle about the origin of radius 20 mm.

11. The double progressive spectacle lens as claimed in claims 2-10, wherein in m) the maximum is within a circular area about the original coordinates of radius 25 mm, preferably 22 mm.

12. The double progressive spectacle lens as claimed in claims 2-11, wherein in n) the maximum is within a circular area about the original coordinates of radius 20 mm, preferably 18 mm.